Dominion Resources Services, Inc.
5000 Dominion Boulevard, Glen Allen, VA 23060

Dominion

March 4, 2005

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
11555 Rockville Pike
Rockville, MD 20852

Serial No. 04-576
NLOS/PRW R1
Docket Nos. 50-336/423
50-338/339
50-280/281
License Nos. DPR-65/NPF-49
NPF-4/7
DPR-32/37

DOMINION NUCLEAR CONNECTICUT, INC.
VIRGINIA ELECTRIC AND POWER COMPANY
MILLSTONE POWER STATION UNITS 2 AND 3
NORTH ANNA POWER STATION UNITS 1 AND 2
SURRY POWER STATION UNITS 1 AND 2
NRC GENERIC LETTER 2004-02: POTENTIAL IMPACT OF DEBRIS BLOCKAGE ON EMERGENCY RECIRCULATION DURING DESIGN BASIS ACCIDENTS AT PRESSURIZED-WATER REACTORS
90 DAY RESPONSE

In a letter dated September 13, 2004, the NRC issued Generic Letter 2004-02, "Potential Impact of Debris Blockage on Emergency Recirculation during Design Basis Accidents at Pressurized-Water Reactors." The generic letter identified a potential susceptibility of recirculation flow paths and sump screens to debris blockage. The generic letter requested that addressees perform an evaluation of the emergency core cooling system (ECCS) and containment spray system (CSS) recirculation functions in light of the information provided in the letter and, if appropriate, take additional actions to ensure system function. Additionally, addressees were requested to submit the information specified in the letter to the NRC.

In accordance with 10 CFR 50.54(f) Dominion Nuclear Connecticut, Inc. and Virginia Electric and Power Company (Dominion) are providing the response for Millstone Power Station Units 2 and 3, North Anna Power Station Units 1 and 2, and Surry Power Station Units 1 and 2 in the attachment to this letter.

Should you have any questions regarding the responses provided, please contact Mr. Paul R. Willoughby at (804) 273-3572.

Very truly yours,

David A. Christian
Senior Vice President - Nuclear Operations and
Chief Nuclear Officer

Attachment

Commitments in this letter: None

cc: U.S. Nuclear Regulatory Commission
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COMMONWEALTH OF VIRGINIA)
)
COUNTY OF HENRICO)

The foregoing document was acknowledged before me, in and for the County and Commonwealth aforesaid, today by David A. Christian, who is Senior Vice President – Nuclear Operations and Chief Nuclear Officer, of Dominion Nuclear Connecticut, Inc. and Virginia Electric and Power Company. He has affirmed before me that he is duly authorized to execute and file the foregoing document in behalf of those Companies, and that the statements in the document are true to the best of his knowledge and belief.

Acknowledged before me this 4th day of March, 2005.

My Commission Expires: August 31, 2008.

Margaret B. Bennett
Notary Public

(SEAL)

ATTACHMENT

NRC GENERIC LETTER 2004-02: POTENTIAL IMPACT OF DEBRIS BLOCKAGE ON EMERGENCY RECIRCULATION DURING DESIGN BASIS ACCIDENTS AT PRESSURIZED-WATER REACTORS

90 DAY RESPONSE

DOMINION NUCLEAR CONNECTICUT, INC.
VIRGINIA ELECTRIC AND POWER COMPANY
MILLSTONE POWER STATION UNITS 2 AND 3
NORTH ANNA POWER STATION UNITS 1 AND 2
SURRY POWER STATION UNITS 1 AND 2

NRC GENERIC LETTER 2004-02: POTENTIAL IMPACT OF DEBRIS BLOCKAGE ON EMERGENCY RECIRCULATION DURING DESIGN BASIS ACCIDENTS AT PRESSURIZED-WATER REACTORS

90 DAY RESPONSE

In a letter dated September 13, 2004, the NRC issued Generic Letter 2004-02, "Potential Impact of Debris Blockage on Emergency Recirculation during Design Basis Accidents at Pressurized-Water Reactors." The generic letter identified a potential susceptibility of recirculation flow paths and sump screens to debris blockage. The generic letter requested that addressees perform an evaluation of the emergency core cooling system (ECCS) and containment spray system (CSS) recirculation functions in light of the information provided in the letter and, if appropriate, take additional actions to ensure system function. Additionally, addressees were requested to submit the information specified in the letter to the NRC.

In accordance with 10 CFR 50.54(f) Dominion Nuclear Connecticut, Inc. and Virginia Electric and Power Company (Dominion) are providing the response for Millstone Power Station Units 2 and 3 (MPS 2&3), North Anna Power Station Units 1 and 2 (NAPS 1&2), and Surry Power Station Units 1 and 2 (SPS 1&2) below.

NRC Requested Information

1-1(a) (i) Description of the methodology used to analyze the susceptibility of the ECCS and CSS recirculation functions of the Dominion units to the adverse effects of post-accident debris blockage and operation with debris-laden fluids identified in GL 2004-02:

(ii) Completion date of analysis:

Dominion Response

Dominion will use the methodology described in NEI 04-07, "Pressurized Water Reactor Sump Performance Evaluation Methodology," to analyze the susceptibility of the MPS 2&3, NAPS 1&2, and SPS 1&2 containment sumps to the adverse effects of post-accident debris. The NRC approved this methodology, as modified by the NRC SER dated December 6, 2004. Where the NRC SER identified that conditions, limitations, modifications or alternative guidance are necessary, Dominion will address the item by supplementing the NEI methodology. Industry efforts have been initiated for the evaluation of coatings failures, the effects of chemical reactions in containments during LOCAs, and the downstream effects of debris-laden fluid. As information from those initiatives becomes available, Dominion will factor the results into the plant specific analyses. Should such information not be available or not be applicable to Dominion's units, Dominion will address those issues using applicable assumptions and methodologies. Further, if in the performance of the analyses, deviations from the NEI methodology are found to be necessary, these will be identified and justified with the submittal of the analysis results.

Dominion will complete the analysis requested by Generic Letter 2004-02 no later than September 1, 2005.

NRC Requested Information

1-1(b) (i) Performance of containment walkdown surveillance in support of the analysis of the susceptibility of the ECCS and CSS recirculation functions to the adverse effects of post-accident debris blockage identified in GL 2004-02:

(ii) Methodology used to complete containment walkdown surveillance:

(iii) Completion date of walkdown:

Dominion Response

Dominion has completed walkdowns of the MPS 2&3, NAPS 1&2, and SPS 1&2 containments based on the methodology described in NEI 02-01, "Condition Assessment Guidelines: Debris Sources Inside PWR Containments," as indicated below:

MPS 2: Refueling Outage M2-R-15, fall 2003.

MPS 3: Refueling Outage M3-R-08, fall 2002.

NAPS 1: Refueling Outage N1-R-16, spring 2003

NAPS 2: Refueling Outage N2-R-16, spring 2004

SPS 1: Refueling Outage S1-R-18, spring 2003

SPS 2: Refueling Outage S2-R-18, fall 2003

Dominion intends to collect samples of latent debris (e.g., dirt, dust, lint) consistent with requirements for validating input used in the methodology in NEI 04-07 and the associated NRC SER dated December 6, 2004, during upcoming refueling outages. Data from these samples will be utilized to refine the evaluation of debris generation and transport as part of the sump performance analysis, if required.